

What is claimed is:

1. A sensing switch for detecting the position of a vehicle transmission shift lever having a shift lever knob at an upper end thereof, comprising:
  - a receiver having a predetermined target area;
  - a transmitter for transmitting a directed beam of trigger signals;
  - one of the receiver and transmitter being mounted to the shift lever knob and the other of the receiver and transmitter being mounted in the vehicle at a location spaced apart from the shift lever knob so that the transmitted trigger signals are directed towards the target area when the shift lever knob is in a predetermined position; and
  - a controller coupled to the receiver for determining, based on the trigger signals received by the receiver, if the shift lever knob is in the predetermined position and if so generating a predetermined signal.
2. The sensing switch of claim 1 wherein the other of the receiver and transmitter is mounted at a location that is horizontal with or above the shift lever knob.
3. The sensing switch of claim 2 wherein the other of the receiver and transmitter is mounted in one of one of a head liner, a door panel or an instrument panel of the vehicle.
4. The sensing switch of claim 1 wherein the transmitter includes a narrow beam emitting device mounted to an upper end of shift lever knob to direct the trigger signals in an upward direction, the receiver being mounted to the interior of the vehicle in a location higher than the transmitter.
5. The sensing switch of claim 4 wherein the target area is secured to a head liner of the vehicle.
6. The sensing switch of claim 1 wherein the predetermined position corresponds to a neutral position of the shift lever and the predetermined signal is for

application to a remote vehicle starter for enabling the remote vehicle starter to start an engine of the vehicle.

7. The sensing switch of claim 6 further including a motion sensor for detecting motion of the vehicle and generating a predetermined kill engine signal if motion is detected thereby during start up of an engine of the vehicle.
8. The sensing switch of claim 1 wherein the controller is configured for checking if the signals received by the receiver meet predetermined characteristics for confirming that the received signals are trigger signals.
9. The sensing switch of claim 8 wherein the trigger pulses have a frequency selected to fall outside of frequencies generally associated with the transmission of electrical power.
10. The sensing switch of claim 1 wherein the transmitter includes a fine beam producing laser device for generating the trigger signals, and the receiver includes an optical sensor.
11. The sensing device of claim 10 wherein the laser device includes a focasable collimating lens for adjusting a width of the fine beam produced by the laser device.
12. A sensing switch for detecting the position of a transmission shift lever in a vehicle, comprising:
  - a receiver having a predetermined target area, the receiver being configured for mounting to a target area in the vehicle;
  - a shift knob handle having embedded therein a transmitter for transmitting a directed beam of trigger signals and having a lower end for engaging an upper end of a shift lever; and
  - a controller coupled to the receiver for determining, based on the trigger signals received by the receiver, if the shift lever is in the predetermined position and if so generating a predetermined signal.

13. The sensing switch of claim 12 including a vehicle movement sensor for detecting movement of the vehicle upon attempted startup of the engine and generating a kill engine signal if vehicle motion is detected.
14. The sensing switch of claim 13 including a remote vehicle starter coupled for receiving the predetermined signal and the kill engine signal, wherein the predetermined signal is for signaling to the remote vehicle starter that the vehicle shift lever is in a neutral position for enabling the remote vehicle starter to start an engine of the vehicle, the remote vehicle starter being configured for ceasing any attempted startup of the engine upon receiving the kill engine signal.
15. The sensing switch of claim 12 including a detector for detecting and generating a brake signal for the controller if a parking brake of the vehicle is in a braking position, the controller configured to not generate the predetermined signal if the brake signal is absent.
16. The sensing switch of claim 12 wherein the transmitter includes a narrow beam laser emitting device housed within the shift knob handle.
17. The sensing switch of claim 12 wherein the shift knob handle includes a housing, a resilient member, the housing being secured to the lower end of the shift knob handle by a plurality of adjustment screws, the resilient member being located between the housing and the lower end and compressible through adjustment of the adjustment screws, the transmitter being mounted in the housing and being aimable through adjustment of the adjustment screws.
18. The sensing switch of claim 17 wherein the housing has an upper surface from which the transmitter directs the trigger pulses.
19. A neutral sensing system for use with a remote vehicle starter in a manual transmission vehicle to detect if the vehicle is in neutral, comprising:
  - a sensing switch for determining, upon receiving an activating signal, if a transmission shift lever is in a predetermined physical location that is associated with

neutral, and if so generating a "start" signal to signal the remote vehicle starter to commence starting the vehicle engine; and

a movement detection device for detecting, upon receiving an activating signal, if the vehicle is moving, and if so generating a "kill engine" signal to override the "start" signal and cause the vehicle starter to abort starting the vehicle engine.

20. The neutral sensing system of claim 19 wherein the sensing switch includes:
  - a receiver having a predetermined target area;
  - a transmitter for transmitting a directed beam of trigger signals;
  - one of the receiver and transmitter being mounted to the shift lever and the other of the receiver and transmitter being mounted in a location higher than the shift lever so that the transmitted trigger signals are directed towards the target area when the shift lever is in the predetermined location; and
  - a controller coupled to the receiver for determining, based on the trigger signals received by the receiver, if the shift lever is in the predetermined location and if so generating the "start" signal.